

G3ZME  
G6ZME

[www.TDARS.org.uk](http://www.TDARS.org.uk)

FOUNDED 1969

[www.TelfordHamfest.co.uk](http://www.TelfordHamfest.co.uk)

**July—Sept. 2022**

# Programme

[www.telfordhamfest.co.uk](http://www.telfordhamfest.co.uk)

## Editorial

Two of the TDARS events that have taken place for the first time since pre-Covid days have been successfully undertaken, despite the 'big C' still lurking (just ask Heather and Paul. . . ) The 50MHz Trophy Contest in mid June was a bit short of operators, but the 7 element LFA yagi was hoisted onto the club's mobile mast, and results of this 24hr slog have been published, with TDARS coming 3rd in the Open Section of the contest, operating from the Long Mynd IO82NN. They had a remarkable 340 QSOs, scoring 313197 pts, with the best DX into Cyprus at 3411 Km distance. They used all club equipment (IC-7600 + Elecraft 400 watt PA + Ant.) which is a 'good thing'. So congrats. to listed op. Simon 'UFE, Paul 'PLA, John 'JZH, Paul 'PNN and all helpers.

Likewise, G3ZME/P was given a good thrashing on the 6m, 2m, 70cm and 23cm bands for VHF NFD at the start of July. A few more ops. and helpers appeared that weekend at our Long Mynd site, some only available for a few hours due to other outside commitments, but still making the effort. Many thanks. No published results yet, but based on claimed scores, we were 6th on 6 metres, 2nd on 2 metres, 3rd on 70cm and 1st on the 23cm band. These were our actual claimed entries for the Sections we entered, but subject to adjudication, of course:-

**50MHz: 63 QSOs, 10510 points. Best DX PA4VHF in JO32JE at 658Km. (no Spor. Es this year)**

**144MHz: 191 QSOs, 36212 pts. Best DX OZ1ALS in JO44XX at 884 Km.**

**432MHz: 61 QSOs, 8798 pts. Best DX OR6T in JO20KV at 565Km.**

**1296MHz: 53 QSOs, 9179 pts. Best DX PI4GN in JO33II at 648Km.**

So we shall have to wait a further few weeks before the final scores and positions are announced. More than half of the Club's membership helped in one way or another, which at this time is quite remarkable in my opinion, and bodes well for the future of the Society. **MIV**

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**For several years, TDARS has had a social media presence on these two sites.**



**In an e-mail (5th June), John M0JZH suggested . . .**

“ I have been thinking recently about starting a WhatsApp group for the club members only, purely for on-the-go info – eg someone that has been worked just, or someone perhaps SOTA or portable to show where they are working on the bands. Not intended to take the place of anything like groups.io, but to sit alongside. The beauty of WhatsApp is that the information comes across very quickly and anyone within reach of a radio can tune in quite quickly.. Your thoughts please. “



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**Morse training has taken a bit of a lift this spring/summer, with Eric M0KZB taking a lead:“**

Hi all,

Thank you to those of you who have emailed me for the Morse Course, I am setting you up into two groups, as already stated.

Any more of you wishing to join us please email me, [ericarkinstall42@gmail.com](mailto:ericarkinstall42@gmail.com)

Don't be shy, you will really enjoy it. If you have any queries, please do not hesitate to contact me on the email address above.

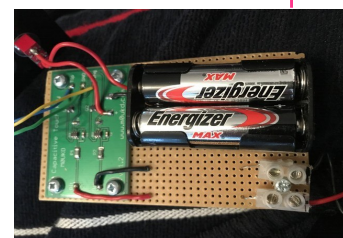
I will be contacting you all soon, I am just waiting for late comers returning my email.

Best wishes/73, Eric Ainstall M0KZB. (e-mail—15th May) “

### An interesting response from Neil M1NMG: (e-mail 23rd May)

“Hi, I picked up a little paddle key at the club sale, not really knowing anything about it or how it worked. Anyway I stripped it down yesterday and Googled the callsign on the pcb. M0UKD (John from London). It's a capacitive touch key kit he used to sell in 2016. I put new batteries in it, plugged it into my 991A and it seems to work, I'll test it out when I've learnt a bit of morse .

Looking at the price of keys, I think 50p was a bargain. Thanks to whoever built it. “





# Qtc: News & Information



**TDARS MEETINGS EVERY WEDNESDAY EVENING HELD NORMALLY AT LITTLE WENLOCK VILLAGE HALL WITH SOME ONLINE (Webex) STREAMING OF APPROPRIATE PRESENTATIONS: PLEASE CHECK FRONT PAGE LISTING FOR SPECIFIC DETAILS.**

**Please note: A current membership card may be required to borrow TDARS equipment. Please return borrowed equipment promptly .**

**Summer Time is TDARS Portable Time**, so apart from the two VHF/UHF contests mentioned in the Editorial (50MHz Trophy & VHF NFD) , there have been local DF Hunts, a BBQ, and in May there was a general amateur radio 'shindig' in the usual LW Village Field location. Photos from M1NMG and G6DFD:



On June 11th, there was an **exceptional tropo "Es" opening** on 2 metres. Paul M0PNN reported 'The longest period of Es I have ever seen 2m CW, SSB, FT—all good ☺ fun'

And Peter G4URT added ' Massive SpE event Saturday pm on 2m. Got back from shopping to find the band buzzing. In 30 mins worked ZA, Z31, E77 (all new DXCCs), YU, SV2 and LZ. DXCC now within spitting distance... FT8? LOVE IT !!!!!.

The following day, Peter reported: 'The news from 'URT land is that after 10 years of blood, sweat, toil, frustration, cost and aggravation, DXCC on 2m digital has been achieved with GD6ICR who I was keeping back as a 'banker'. Now to spend even more money on stamps (both Post Office and 'green') to get the returns. And then a trip to Anglesey some time next year to visit GW0KRL who is an ARRL card checker. Maybe electronic cards are the way forward.....or maybe not! Just off for a very small beer: Peter G4URT'

In June (22nd) the Club meeting was an unusual presentation by two officers (Tom and Andy) from **Telford & Wrekin Council's Planning Department**. They explained all aspects of their duties when considering planning applications from amateur radio enthusiasts, and also what happens if you DON'T apply when you should! It was quite an eye opener, with lots of sub-clauses which can help or hinder acceptance of a project. One interesting 'loophole' was the law that allows erection of a flagpole at a premise without permission (any height ?). So maybe Telford area could see a huge increase in apparent patriotism in future months . . . . . ?



On the same evening, Martyn G3UKV received a trophy for G3ZME/P microwave exploits from the Brown Clee Hill in 2021. Heather (M0HMO) who is responsible for all the UK Microwavers Group trophies, had the honour (?) of presenting Martyn with the trophy: In 2021, ops./helpers for the 5.7 and 10 GHz events from Brown Clee included Mike G4NKC, Paul G8AQA, Heather M0HMO, Ken G3YKI and Kevin G8UPF. Martyn also undertakes 24GHz activity as a solo op. The activity from this excellent site (~540 MASL, 1772 ft.) continues in 2022.

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'Ham Radio' is an annual event in beautiful Friedrichshafen, south Germany, which took place this year on 24-26th June after two missed years due to Covid. I don't go every year but have been more times than I can remember; with this being the first post-Covid event I thought I would make the effort.

An aerial photograph of a coastal town, likely in Switzerland, featuring white buildings with red-tiled roofs situated along a blue body of water. A prominent white building with a modern glass extension is visible. The foreground shows a concrete quay and a small boat. The background includes a church spire and a bridge in the distance under a blue sky with scattered clouds.

As always there was a lecture stream offered by DARC in the central foyer and several European wide organisations use conference rooms within the wider complex to hold meetings - I believe the IARU Region 1 team take the opportunity to meet while they're all there.

Outside the show, Friedrichshafen and its lake setting are stunning. There are many pavement restaurants, shops and the Zeppelin Museum is worth a visit - the world's largest aviation collection, chronicling the history of the Zeppelin airships and combining technology with art. Over at the Zeppelin factory adjacent to the Messe, a couple of Zeppelins offer rides out over the lake to Liechtenstein and back - I've never done it, but I can imagine the views must be fantastic.

Contin >>>>>>



A man with a shaved head and sunglasses on his head, wearing a dark zip-up jacket, is smiling and holding three large glasses of beer. He is standing at an outdoor festival with wooden tables and other festival-goers in the background. A sign for 'Bohlaus' is visible in the background.

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However, I managed to bid on a beaten up one on Ebay and got it for under £70 including postage. Came in a couple of days and very well wrapped. Plugged in a 10C slug, bunged a Bird Load on the output, applied some RF and all was well. After stripping it apart (about a dozen screws), quick rub down and re-spray, clean the glass and bezel and replacing the feet it looks as good as new. Yes, I've got rid of the 'patina' (or should that be its shabby chic finish?) on an antique which according to some TV shows is sacrilege. Personally I think it looks much better painted! Only thing left to do to complete the restoration was a visit to a charity shop to find an old leather belt (cost a quid) and fashion a new strap. Only problem with this strap was that it was dark blue, but some black leather polish soon sorted that out. I now have the new meter on the SSPA input with a 25C slug (below left) and my other one on the SSPA output with a 1000C slug – both meters on the operating desk so I can keep on eye on what is going on instead of craning my neck to see the meters on the transverter and SSPA which are both housed within a server rack.



The Bird 43 is an ancient design (from the late 1950s) and as such seems to be a bit 'clunky' by today's standards but what must be born in mind is that they were designed for professional service engineers who are quite often working in the field and need something dependable and accurate. Therefore in their time this type of wattmeter would have probably been the only type to be used and to use modern parlance 'state of the art'. When it comes to the actual elements or 'slugs' as they are quite often referred to, there are 2 manufacturers – Bird and Coaxial Products.

I'm assuming here but as the product has been in production for such a long time that the patent may well have expired, hence another manufacturer being available (which although being identical are cheaper).

**John G4IRN, John M0JZH, Neil M1NMG, Paul M0PNN, Paul M0PLA,  
David M0YDH, Simon G0UFE, Peter G4URT, Paul G8AQA, Eric M0KZB,  
Mike G6DFD, Graham G7LMF, Martyn G3UKV**

**Next edition September 2022**  
**Can YOU contribute something?— Results in a better Newsletter for All !**

I talked about using a 10C slug above for testing the meter. The elements have a number (the power limit) followed by a letter (the frequency range). Hence the 10C refers to 10 watt FSD in the C range (100 – 250mhz). A full list of letters / ranges is easily found on t'internet.

The real problem regarding the wattmeter is the availability (or not) of that particular slug that you need. I don't think that they are readily available new in the UK so if you want new then it's the expensive import route from the USA (unless you do like I did and got a mate of a mate to import one hidden in his suitcase and dirty socks...). So it is down the Ebay or any of the radio for sale sites to locate what you need. And be warned – there are some really REALLY silly prices being asked for the more popular bands using high power versions.

As I understand it is possible to re-calibrate the elements by removing the information cover and delving inside, but in doing so this cover is ruined, so I wouldn't attempt it myself. Maybe worth bearing in mind if you are offered one with no info cover? Personally I wouldn't touch one of these with the proverbial barge pole.

With regards to the wattmeter itself be aware that they do come with different QR (quick replacement?) sockets. I have seen SO239, N, BNC and C examples in the past. Don't end up with 'C' sockets if you are 'N' only! Check the photos closely....

So having got all the kit connected up what about actually using it to see your SWR? I really wouldn't bother if I were you! That is what modern bits of kit like my FA-VA5 (other VNAs are available) or SWR meters are for. Like I said this was designed in the 1950s when this was probably all that was available. However, if you are up for the challenge, then what you do is measure the forward power and then rotate the slug around 180 degrees and measure the reverse power. Then get the trusty Bird 43 SWR graph out (copies of which are also available online) and by using extrapolation find the SWR.

The question really is do you really need one? Well, yes and no. I would say that if you just run an 'average' system on HF and VHF then probably not. I'm thinking of a typical 100w station here going up to 2m. There are far more suitable SWR meters out there which are more than adequate for the job and will work out cheaper. For getting on for 30 years I used a Daiwa CN620A cross needle meter (See photograph for an example >>) that was rated upto 1kw, although I never pushed it that far.....After I had ripped out and binned those horrible SO239s and replaced them with decent N types, it served me very well indeed. Looking on Ebay I have seen 2ndhand Daiwa meters costing less than one of the slugs! I still have it and wouldn't part with it even though after all these years the red SWR calibration lines on the dial have completely faded away.



However, if you do run large amounts of power especially at VHF upwards then a Bird maybe not such a bad idea. Just beware that a high power slug can easily start at £50 on Ebay and within a day the price will have rocketed.

Or, it could just be that you fancy a bit of kit that is retro both in looks and operation – no microprocessors here.

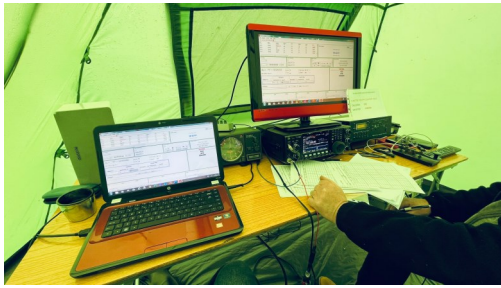
To sum up why got to all the aggro and expense of getting a Bird 43 and the slugs? 1) There is the square root of nothing to go wrong with them. No delicate electronics. 2) They are old fashioned and what is wrong with that? 3) They are very good at the higher bands (23cms upwards) where a lot of other meters either cannot go or accuracy is somewhat lacking. 4) Most importantly they make damn good power meters to keep permanently in line especially if like me you routinely run high power.

There is another reason as well. If you can pick one up cheaply, this is probably because the case has lost most of its paint and feet with the also strap missing. What you do is invest an hour of your time by stripping it down, cleaning the glass, rubbing down and re-spraying the case and then fitting new feet and strap. If you use the correct shade of paint, it will look almost new. Then, bung it on Ebay and make a few quid. That reminds me. Has anyone got a cheap Bird 43 they no longer want and who wants to sell it to me dirt cheap ?

On the subject of Bird equipment it is always worth looking out for their dummy loads which can sometimes be picked up quite cheaply at times if you are lucky. My 150W Termaline (good upto 4 Ghz) was £25 at a Radiofairs rally in London and my 25W (good upto 3.5 Ghz) version cost £30 from Ebay. Now compare these prices and specs with new loads available from the major radio equipment suppliers in the UK.....again, Ebay is your friend.

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[ Having been noted by Paul M0PLA that I didn't use his Tywyn Marconi International Day photos, here are a couple of 'good-uns' from him for the Long Mynd 50MHz Trophy Contest in June: - Ed]



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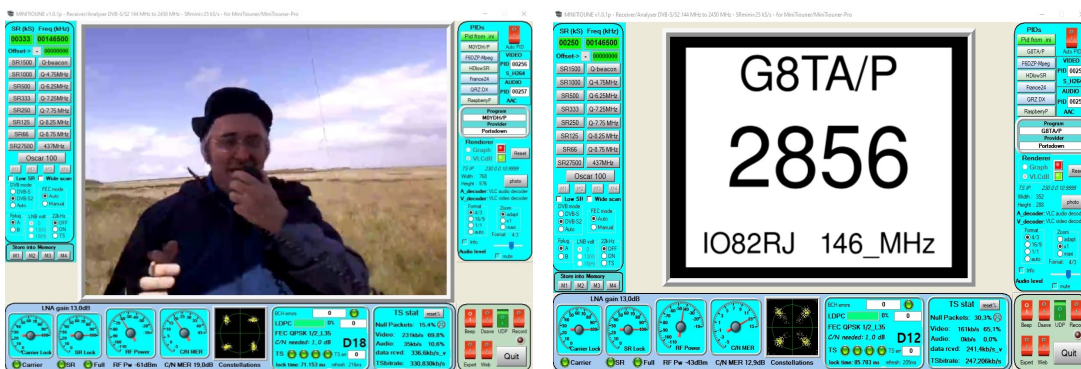
## **Digital ATV Report by David M0YDH**

I took part in the annual ATV contest yesterday (11 June) from Clee Hill using my home made equipment. I made two two-way digital ATV contacts on 23cm x 2, 70 cm x 2.5 and 2m x1. Most were 70km away.

We send a contest card shown in the pictures. The other station acknowledges receipt of the image by reporting the sum of the four numerals. This avoids giving the code away on talk-back to other stations who may be listening.

Today (12 June) Andy G7CFC joined me and we returned to the same spot. Andy sent pictures on 23cm and 2 m as G8TA/P using DVB-S2 to G3VKV Graham in Cheltenham 40 miles away. These were received P5 . That's 59 in image world. Reception was blighted by my mistakes - namely connecting the receiver patch lead to the wrong port and not recharging the batteries overnight. That 12.9V at the end of a day's operating when no current is being drawn is misleading. Andy seemed to enjoy the activity even so, and the view made a big impression on him. We packed up earlier than planned. I drove round to nearby Titterstone Clee hill where we climbed slowly to the top. For his second 'first' of the day he made 4 Summits On The Air (SOTA) contacts from the trig point. The views were even better. Well done Andy. There is a video of Graham's sound and camera received by me yesterday on my Twitter feed @M0YDH.

73 David Holman M0YDH



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**VHF NFD 3-4 July 2022—Indoors and Out . . . Claimed scores—see Page 2**

## E-mail reflection (5 July) on the 23cm station—By Paul G8AQA

23cm station note from Paul G8AQA: On 1296 we were down on max power. I could only measure 20W at the output of the filter. I did not measure at the end of the coax feed (which was quite short). We should have had 25W at the antenna. The height was a bit under 9m instead of the permitted 10m due to cable lengths. There were some continental stations we could not quite make a QSO with which we might have made if everything was optimal. This was our first time out with the 1296 setup. I have a 45W amplifier to build up so we can get full power comfortably. The other preamp I have may be even better. Next year maybe. . . It was our first contest in the Radio Van. Only small snags to be ironed out.



Inside Simon's van . . .



Paul & Heather's Radio Van (23cm)



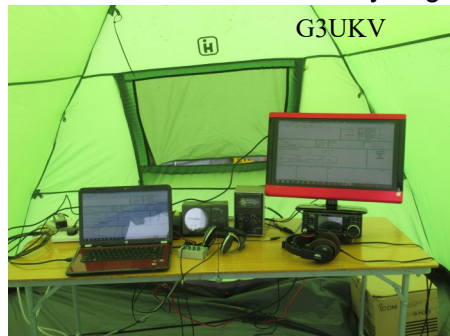
2 metre tent—Graham & Paul



70cm Station tent-Robin & Paul



6 metre station tent—ready to go



INSIDE OF THE FOUR STATIONS : >>>  
OUTSIDE VIEWS AND ACTIVITIES

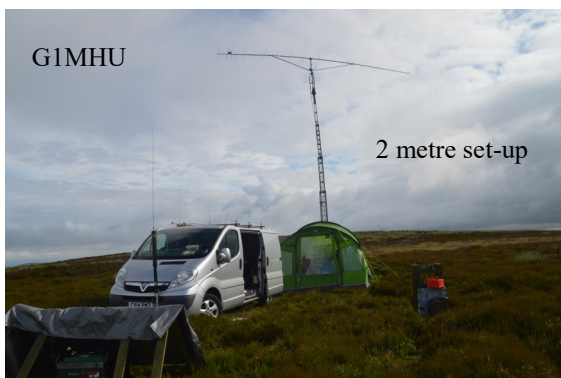
G3UKV



Snack time  
#1

G1MHU

G1MHU



2 metre set-up

6 metre antenna  
and tent



That newly  
mobile Radio  
Van of Paul &  
Heather's.  
Most impressive

G3UKV



Snack time #2. . .



G1MHU



Ten members holding the banner.  
Apologies to others on-site who  
missed out on this photo-shoot . . .  
...but everyone was keen to leave  
the site ASAP, and even the  
banner needed rolling up.